

PROGRESS OF MEDICAL SCIENCE.

MEDICINE.

UNDER THE CHARGE OF

WILLIAM OSLER, M.D.,

REGIUS PROFESSOR OF MEDICINE, OXFORD UNIVERSITY, ENGLAND,

AND

W. S. THAYER, M.D.,

PROFESSOR OF CLINICAL MEDICINE, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MARYLAND.

A Contribution to Orthostatic Albuminuria.—HEUBNER (*Berl. klin. Woch.*, 1907, liv, 1). The group of cases first classed by Sterling as postural have gradually become separated from the general class of physiological albuminurias as a distinct type. The clinical picture is strikingly uniform, and the recent work of Edel and of Erlanger and Hooker and others has shown a marked relation to blood-pressure changes. Their work suggests that the condition depends upon circulatory derangements and not upon kidney disease. Many prominent authors, however, look with suspicion upon these views and refuse to believe that a normal kidney can secrete such large amounts of albumin over such a long period of time. The opportunity for pathological study seldom occurs, but its importance is evident. Such an exceptional chance has come to Heubner. The patient, a girl aged twelve years, died of a tumor of the brain. She had been under observation at varying intervals for over two years, and during the last year and a half had displayed a typical orthostatic albuminuria. At autopsy the kidneys were found, upon careful microscopic and macroscopic examination, to show only such slight lesions that they could not be held accountable for the symptoms; they were found, indeed, to be practically normal. It is definitely proved, then, that the urine over a long period may contain large amounts of albumin with perfectly healthy kidneys, and such a statement will probably hold good for the whole class of orthostatic albuminurias.

Ileocecal Tuberculosis.—TOMITA (*Wien. klin. Woch.*, 1906, xix, 1581) reports 5 interesting cases of ileocecal tuberculosis. The patients ranged in age from twenty-one to thirty-two years. Two gave a family

history of tuberculosis. In all the disease developed gradually with symptoms of intestinal derangement. In two the symptoms followed trauma. The stools were loose or constipated, the two conditions often varying, and after a long period the picture of a chronic obstruction developed, with a palpable tumor in the iliac fossa, in at least one instance discovered by the patient himself. The tumors were about the size of a fist, elastic, slightly tender, and somewhat movable. In two cases there were enlarged tuberculous mesenteric glands as well as the tumor. All of the patients did well after operation excepting one, who died as the result of necrosis, probably from the pressure of a Murphy button. Even the patient from whom the mass could not be entirely removed on account of adhesions was greatly improved. Of special interest clinically is the statement that no tuberculous lesion could be found in any other part of the body. Since the time of Billroth these ileocecal tuberculous tumors have been grouped as a special clinical entity, and there is a large mass of literature contributed to the subject. They simulate very closely the scar-tissue masses following appendicitis and cecal carcinoma, and mistakes in diagnosis are frequent. Operation with extirpation of the mass is followed by good results. In 85 cases collected by Conrath there were 11 deaths.

Blood-pressure Estimations in Man.—BING (*Berl. klin. Woch.*, 1906, liii, 1650) states that the ultimate aim of all blood-pressure estimations is to obtain an index of the pressure in the aorta. Experimentally this is done by inserting a cannula into the large branches of the aorta and measuring the end pressure. Bing directs his investigations toward discovering if the measurements obtained by the usual methods are the terms of end or lateral pressures. If we obtain lateral pressures these will depend not only upon the pressure in the aorta, but upon the degree of contraction of the vessels distal to the point of compression. A sudden dilatation of the small arteries of the arm would, if the pressure were read from the brachial, show a fall which would by no means indicate a parallel fall in the aorta. From his experiments, which consist in measuring the pressures in both brachials and by various means causing the arteries in one arm to dilate or contract, and then noting the variations in pressure in the two brachials, Bing concludes that what we obtain are lateral and not end pressures. This fact should be borne in mind when we draw clinical deductions, particularly deductions from the effects of therapeutic measures.

Pseudochylous Exudates.—ZYPKIN (*Wien. klin. Woch.*, 1906, xix, 1032). Exudates with a milky appearance have been divided into three classes: the hydrops chylosis, the hydrops chyliformis or adiposis, and the hydrops pseudochylosis. In the first group are the fatty exudates containing chyle from the lymphatics. In the second fat is likewise present, but according to Quincke it is derived from degenerated epithelial cells and is not due to the presence of chyle. In some instances no doubt the two conditions are united. In order to obtain an opalescent emulsion 1.5 per cent. of fat must be present, and any milky exudate with less fat must depend for its color upon some other substance. In cases of hydrops adiposis the fat alone is not always responsible for the color, as the hydrops often retains a milky appearance after all fats have been removed.

Numerous substances have been isolated and considered the cause of this color. In the two instances he reports Zypkin obtained lecithin, globulin, nucleo-albumin, and a mucoid substance, but he does not make any of these responsible for the opalescent appearance, as the same substances were obtained after the exudate had become clear, and, indeed, were found in the pleural transudate of a heart case with broken compensation. Pseudochylous exudates are not distinguishable chemically from simple serous exudates, the milky color depending probably upon some change in the solubility of one of the constituents, perhaps of one of the four substances isolated. It was observed that as the exudate lost its milky appearance the albumin content increased. Achard has noted that in some conditions the blood may become so poor in albumin that the serum assumes a milky color. Zypkin applies that observation to pseudochylous exudates, and suggests that the solubility in whatever the substance is, which causes the milkiness, depends upon the percentage of albumin present.

Mixed Infection in Pulmonary Tuberculosis and its Relation and that of Intestinal Tuberculosis to Amyloid Degeneration.—The frequency and importance of mixed infection in pulmonary tuberculosis has never been settled definitely. The determination of its presence is not by any means easy; the foreign organisms obtained may not come from the disease focus, and even if they do, they may have been there as harmless parasites. To prove that the microorganisms discovered in the examination really come from the diseased lung focus, it is necessary to wash thoroughly, after one of the approved methods, the sputum particles, to be examined either by stain or culture. Organisms having attached themselves in the bronchial passages or elsewhere are thus easily removed. For culture purposes media must be employed suitable both for tubercle bacilli and other organisms; egg albumen as a culture medium is probably the best. Another unsettled point is the question of the significance of organisms other than the tubercle bacilli in the production of symptoms usually ascribed to mixed infection; many observers insist that all the symptoms and lesions discovered can be produced by the tubercle bacillus without assistance; this refers in particular to bronchitis, pleurisy, bronchiectasis, pneumonia, hectic intermittent fever, etc. J. SORGO's observations (*Ztschr. f. klin. Med.*, 1907, lxi, 250) on these points gave the following results: The sputum of 30 patients, 28 of whom were in the third stage of tuberculosis, was examined; 18 had remittent, 3 intermittent, and 9 no fever; 1 patient had amyloidosis. Tubercle bacilli in pure culture were found in the sputum of 26 (among them the hectic fever and amyloid patients); 4 had mixed infection. Of 19 individuals who came to autopsy tubercle bacilli alone were found in 13, mixed infection in 6. In 5 pleurisy cases the serous exudate and sputum contained tubercle bacilli only, in 2 staphylococci were also found, but in 1 they migrated probably after death. Of 17 cadavers examined bacteriologically only 3 had a mixed infection; in 3 mixed infection was doubtful, while in 11 only tubercle bacilli could be found; all types of lesions contained nothing but tubercle bacilli. Sörgo concludes that all the clinical symptoms and all the pathological lesions can be induced by the tubercle bacillus without the

aid of other organisms; mixed infection, while it occurs, is not nearly of the importance which has been ascribed to it. Of 9 cases of general amyloid disease which he has studied 8 had tuberculosis of the intestines; 5 marked cases had deep intestinal ulcers, 3 cases with microscopic lesions only had but slight ulceration. Pure cultures of tubercle bacilli were found in 6, mixed infection in 2. The ninth case had no intestinal complication, but had marked mixed infection, with staphylococci and streptococci. Sargo believes that amyloid degeneration in tuberculous patients means either mixed infection from the standpoint of the lungs or intestinal tuberculosis. The presence of a pure culture of tubercle bacilli in the sputum with positive amyloid degeneration points to the existence of an intestinal tuberculosis. One such clinical case was observed.

The Relationship between Simple Posterior Basic Meningitis and Cerebrospinal Fever.—F. LANGMEAD (*Practitioner*, 1907, lxxviii, 485) is of the opinion that posterior basic meningitis is sporadic cerebrospinal fever, modified, but not differing from it any more than one epidemic differs from another. He discusses the salient clinical and pathological features of posterior basic meningitis as it is met with in infants and the symptoms of the disease as it occurs in older children, and he tries to show that the latter forms a link between the disease as it is found in infants and cerebrospinal fever. After discussing the symptoms, complications, pathology, and bacteriology of posterior basic meningitis he notes the similarities between the two diseases. In both there are initial coryza, irritability, and headache; in both there are rigidity, head retraction, strabismus, and spasms; and in both hydrocephalus is the most common sequel. The chief differences are: The rarity of the rashes in infants with meningitis—older children have them in 20 per cent., in cerebrospinal fever they occur in 33 per cent. of the cases; optic neuritis occurs in 7 per cent. of infants with posterior basic meningitis, in 50 per cent. of older children with posterior basic meningitis, and in 15 per cent. of patients with cerebrospinal fever; amaurosis occurs in 33 per cent. of infants with posterior basic meningitis, in 10 per cent. of older children with posterior basic meningitis, and rarely in cerebrospinal fever; the exudate in posterior basic meningitis is at the posterior base and about the cord, in cerebrospinal fever at the vertex, base, and cord alike. The diplococcus of Still, the cause of posterior basic meningitis, differs from the bacillus of Weichselbaum, the cause of cerebrospinal fever, only in its readier growth and greater vitality; but recent experiments are nullifying these distinctions. Still's bacillus has been isolated from the blood of a case of malignant epidemic cerebrospinal fever. Epidemics of posterior basic meningitis have been noted.

Mechanical Stimulation of the Secretion of Gastric Juice.—The statement accepted for many years, that the secretion of gastric juice is incited as much by mechanical as by chemical irritations has been contradicted by Pawlow and his disciples, who claim that gastric juice is secreted partly as the result of the psychic influences induced by the appetite and partly by chemical influences induced by the food itself. Their statement that the mechanical properties of the food substances are not

capable of producing gastric juice, is based upon the fact that they irritated the gastric mucosa by repeated inflation with a rubber ball, with feathers, and a glass rod, and by blowing coarse sand into the stomach. A. SCHIFF (*Ztschr. f. klin. Med.*, 1907, lxi, 220) comes to a different conclusion. He fed hungry dogs with milk and with milk and bismuth subnitrate. The first dogs secreted 5 and 7.5 c.c. in one and one and a quarter hours, respectively; the second 8.5 and 14 c.c.. The same results were noted when fine sand and a mixture of the two with bismuth were used. Experiments, in which fine sand and glass powder were introduced into the empty stomachs of dogs, who had been watched for an hour, produced similar results. Schiff explains the differences between his and Pawlow's results by stating that the method which Pawlow employed does not resemble the physiological conditions in the slightest. He believes that his experiments justify the conclusion that the mechanical irritation and the mechanical weight of the ingesta have a proportionate influence on the amount of gastric secretion. He concedes that the mechanical secretion is not as great as that of the chemical irritation of ingesta and that both vary in different animals.

Free Pulmonary Hemorrhage in Mitral Stenosis and Extensive Sclerosis of the Pulmonary Arteries.—G. SCHWARZ (*Münch. med. Woch.*, 1907, liv, 615) reports the case of a man, aged thirty years, who began to complain of palpitation and dyspnoea at the age of twenty-four years. He had several attacks of hemoptysis at twenty-eight, and at that time complained of a sensation as if something had torn in his heart. Since then he has had several hemorrhages of variable amounts, and has frequently expectorated blood during prolonged periods. Examinations two weeks before death showed marked anemia, some rales in the lower right lobe posteriorly, the heart enlarged in every direction, the apex-beat in the sixth interspace, a presystolic murmur at the apex, a systolic murmur at the pulmonary orifice with accentuation of the second sound, roughening of the first sound over the tricuspid area, pulsating cervical veins, and albuminuria; the sputum was bloody, contained cardiac cells but no tubercle bacilli. During the next two weeks the patient expectorated about 100 c.c. of blood daily, and two days before death developed a right-sided paralysis. Death was preceded by a large hemorrhage, dyspnoea, and cyanosis. The autopsy revealed an embolus in the left Sylvian artery, the cause of the paralytic attack, mitral and tricuspid stenosis, brown induration of the lungs, hemorrhage in the bronchi, advanced sclerosis of the pulmonary arteries, and infarcts in the spleen and the kidneys. Attention is called to the profuse pulmonary hemorrhage, which had its origin in the marked congestion due to the mitral disease and not in tuberculosis. Cases of this kind are usually spoken of as cardiac hemoptysis. Sclerosis of the pulmonary arteries in most instances does not betray its presence. Bleeding, as in the case reported, may be due to embolus of the pulmonary arteries, pulmonary congestion, degeneration of vessel walls, etc. In this case the vessels showed no rupture anywhere, but rather the picture of endarteritis proliferans, and the hemorrhage must be ascribed, therefore, absolutely to the congestion.

Venous Murmurs in Cirrhosis of the Liver.—Investigations by G. CATTI (*Ztschr. f. klin. Med.*, 1907, lxi, 269) have shown that venous murmurs audible over and in the neighborhood of the spleen are relatively common in cirrhosis of the liver, occurring in one-fifth to one-sixth of all the cases; murmurs audible elsewhere, as in the epigastrium, near the xiphoid, above the umbilicus, etc., are very uncommon and are still unexplained. His first patient had hepatic cirrhosis to a marked degree; the veins about the umbilicus were somewhat dilated, those of the rest of the abdomen very markedly. The xiphoid, mammary, and inferior epigastric veins were markedly dilated and connected by a number of branches. Several centimeters to the left of the umbilicus the hand could feel an intense thrill, most marked over the left inferior epigastric vein; it was easily heard over the entire abdomen, but varied in intensity and character in different places. Compression of the left epigastric vein below the point of greatest intensity caused a disappearance of the murmur; below this point the vein was narrower than farther up. The murmur was evidently caused by the blood flowing suddenly from the relatively narrow inferior epigastric vein into the more dilated superior epigastric vein; the junction of the deep and superficial inferior epigastric was immediately below this point, increasing the pressure, and the blood pressure was still farther increased by the stasis in the portal vein. In the case of his second patient a venous murmur was audible but not palpable immediately below the ensiform; it was transmitted upward along the sternum. The cause of this he found in the junction of the para-umbilical veins, or probably of the termination of the umbilical vein in the larger xiphoid vein, or finally of the deep left epigastric vein into the para-umbilical veins. These murmurs, therefore, are due to the blood flowing under considerable pressure from a relatively narrow vein into a larger one, in which the pressure is considerably lower; they are murmurs of stenosis.

S U R G E R Y.

UNDER THE CHARGE OF

J. WILLIAM WHITE, M.D.,

JOHN RHEA BARTON PROFESSOR OF SURGERY IN THE UNIVERSITY OF PENNSYLVANIA;
SURGEON TO THE UNIVERSITY HOSPITAL,

AND

T. TURNER THOMAS, M.D.,

ASSISTANT SURGEON TO THE UNIVERSITY AND PHILADELPHIA HOSPITALS, AND INSTRUCTOR
IN SURGERY IN THE UNIVERSITY OF PENNSYLVANIA.

The Surgical Treatment of Prostatic Hypertrophy.—LEGUEU (*Annal. de la polyclin. cent. de Bruxelles*, 1907, vii, 19) says that perineal prostatectomy is less grave, but does not always cure; while the suprapubic operation is more grave, but cures completely when it does not prove fatal. Legueu prefers the latter, and considers it the operation of choice in the greater number of cases that are suitable for a prostatec-